

Observations of Comet 1892 d (Brooks) made at the Royal Observatory, Cape of Good Hope.

(Communicated by D. Gill, LL.D., F.R.S., H.M. Astronomer.)

1893.	Cape Mean Time.	Comet- Δ .	No. of Comps.	Observed.	Comet's App. R.A.	Log. ($p \times \Delta$).	Comet's App. Dec.	Log. ($p \times \Delta$).	Reduction to App. Place.	Comp. Star No.
	h m s	m s		ver.	h m s		$^{\circ}$ $'$ $''$		$''$	
Jan. 16	14 59 51.2	-1 25.21	9-8	F.	15 42 43.32	9.8014 n	-41 55 31.6	0.3625 n	-1.66	+4.1 1
18	15 3 20.9	-3 9.37	6-8	F.	15 52 3.89	9.8005 n	-42 4 28.3	0.3477 n	-1.63	+3.4 2
23	14 46 55.9	-0 49.06	12-12	F.	16 14 9.50	9.8113 n	-42 14 27.0	0.4190 n	-1.54	+2.2 3
24	14 49 26.6	-1 17.78	12-12	F.	16 18 23.45	9.8104 n	-42 14 33.6	0.4110 n	-1.53	+1.9 4
28	14 56 34.5	-2 16.48	12-8	F.	16 34 36.80	9.8068 n	-42 9 39.9	0.3883 n	-1.45	+0.9 5
30	14 46 35.9	-0 45.17	12 8	F.	16 42 15.92	9.8107 n	-42 4 26.1	0.4237 n	-1.39	+0.5 6
Feb. 16	14 59 48.4	+2 0.64	12-8	F.	17 36 44.85	9.7872 n	-40 28 26.7	0.3547 n	-0.93	-2.2 7
18	14 52 55.5	+1 11.91	12-8	F.	17 41 55.59	9.7883 n	-40 13 17.9	0.3740 n	-0.87	-2.4 8
19	14 44 59.2	+1 43.91	12-8	F.	17 44 25.19	9.7902 n	-40 5 36.5	0.3993 n	-0.84	-2.5 9
20	14 52 8.7	-2 29.21	12-8	F.	17 46 52.21	9.7848 n	-39 57 41.5	0.3701 n	-0.83	-2.7 10
21	14 44 7.8	-0 42.47	12-8	F.	17 49 14.62	9.7876 n	-39 49 45.6	0.3964 n	-0.79	-2.7 11
22	14 44 15.4	-1 30.56	12-8	F.	17 51 34.15	9.7859 n	-39 41 40.2	0.3915 n	-0.77	-2.8 12
Mar. 16	14 54 19.8	-1 49.96	11-8	F.	...	9.7188 n	...	0.2248 n	-0.09	-3.8 13
17	14 50 10.4	+3 13.46	12-8	F.	...	9.7190 n	...	0.2358 n	-0.03	-3.8 14
18	14 41 40.0	-1 8.35	12-8	F.	...	9.7245 n	...	0.2610 n	-0.02	-3.8 15
22	14 54 54.0	-2 29.68	12-8	F.	18 34 39.78	9.6894 n	-35 44 21.2	0.1691 n	+0.11	-3.9 16
25	14 49 42.0	+1 31.33	12-8	F.	18 36 53.92	9.6810 n	-35 19 22.8	0.1635 n	+0.23	-4.0 17
26	14 52 11.6	+2 10.06	12-8	F.	18 37 32.68	9.6719 n	-35 11 6.2	0.1418 n	+0.26	-4.0 17
Apr. 14	14 8 36.1	+0 31.84	12-8	F.	...	9.6134 n	...	0.1225 n	+0.91	-4.2 18
17	14 16 33.4	+0 42.38	12-8	F.	...	9.5657 n	...	0.0500 n	+1.03	-4.3 19
20	13 45 48.2	-0 25.09	12-8	F.	18 38 19.64	9.5999 n	-31 52 7.2	0.1329 n	+1.14	-4.5 20
23	13 10 50.3	-1 12.27	12-8	F.	18 30 29.87	9.6282 n	-31 25 3.2	0.2079 n	+1.26	-4.7 21

Adopted Mean Places of Comparison Stars.

Comp. Star No.	R.A. 1893'o.	Dec. 1893'o.	Authority.
	h m s	° ' "	
1	15 44 10.19	-41 58 31.5	C.Z. XV. 3020.
2	15 55 14.89	-42 5 25.8	Equat. diff. from <i>a</i> .
<i>a</i>	16 4 53.29	-42 5 45.1	A.G.C. 21923.
3	16 15 0.10	-42 15 37.3	One Equat. diff. from <i>b</i> .
<i>b</i>	16 11 50.86	-42 24 40.5	A.G.C. 22082, Cape (1880).
4	16 19 42.76	-42 13 26.8	C.Z. XVI. 1303.
5	16 36 54.73	-42 11 18.3	C.Z. XVI. 2491.
6	16 43 2.48	-42 8 12.4	Equat. diff. from <i>c</i> .
<i>c</i>	16 46 26.78	-42 11 0.0	A.G.C., Cape (1880) and (1885).
7	17 34 45.14	-40 24 24.2	A.G.C. 23959.
8	17 40 44.55	-40 11 21.5	Equat. diff. from <i>d</i> .
<i>d</i>	17 40 6.10	-40 5 5.3	A.G.C. 24107, Cape (1885).
9	17 42 42.12	-40 3 18.4	A.G.C. 24182, Cape (1880).
10	17 49 22.25	-39 54 53.9	A.G.C. 24328.
11	17 49 57.88	-39 49 30.7	C.Z. XVII. 3294.
12	17 53 5.48	-39 39 27.6	A.G.C. 24431.
13	18 31 (22)	-36 37	$9\frac{3}{4}$ mag. = <i>e</i> $\begin{cases} -2^m 17^s.98 \\ +3' 15''.1. \end{cases}$
<i>e</i>	18 33 (40)	-36 40	$8\frac{1}{2}$ mag.
14	18 27 (22)	-36 30	$8\frac{1}{2}$ mag.
15	18 32 (50)	-36 23	8 mag.
16	18 37 9.35	-35 44 47.6	A.G.C. 25565, Cape (1880).
17	18 35 22.36	-35 15 18.8	A.G.C. 25523.
18	18 41 (21)	-32 40	$9\frac{1}{2}$ mag. = <i>f</i> $\begin{cases} -0^m 25^s.10 \\ +2' 28''.0. \end{cases}$
<i>f</i>	18 41 (46)	-32 42	$8\frac{1}{2}$ mag.
19	18 39 (6)	-32 20	9 mag.
20	18 38 43.59	-31 48 46.4	Equat. diff. from <i>g</i> .
<i>g</i>	18 40 15.99	-31 51 12.0	A.G.C. 25650.
21	18 31 40.88	-31 26 45.1	C.Z. XVIII. 1807.

Notes.

January 16, 18.—Very bad definition; comet very diffused.

February 19.—Comet bears as bright a wire in observing as a 10-mag. star.

April 14.—Comet faint, and a small star near it was troublesome.

April 23.—Comet near two stars; faint and difficult.

Ephemeris of the Fifth Satellite of Jupiter, 1893. By A. Marth.

Greenwich Noon. 1893.	P+90°	a	b	l-L.	Approx. Greenwich Times of greatest elongations.	
					h m	h m
Aug. 4	76°87	48''37	+2''64	292°14	17 12 E	23 11 W
6	76°97	48°65	2°66	297°29	17 2,,	23 0,,
8	77°07	48°93	2°68	302°44	16 51,,	22 50,,
10	77°17	49°22	2°70	307°61	16 41,,	22 40,,
12	77°26	49°51	2°72	312°79	16 31,,	22 29,,
14	77°35	49°80	2°74	317°98	16 20,,	22 19,,
16	77°43	50°10	2°76	323°18	16 10,,	22 9,,
18	77°51	50°41	2°78	328°39	16 0,,	21 58,,
20	77°59	50°72	2°80	333°61	15 49,,	21 48,,
22	77°66	51°04	2°83	338°85	15 39,,	21 38,,
24	77°73	51°36	2°85	344°09	15 28,,	21 27,,
26	77°80	51°68	2°87	349°34	15 18,,	21 17,,
28	77°86	52°00	2°89	354°61	15 7,,	21 6,,
30	77°91	52°33	2°91	359°89	14 57,,	20 56,,
Sept. 1	77°96	52°67	2°94	5°18	14 46,,	20 45,,
3	78°01	53°00	2°96	10°48	14 36,,	20 34,,
5	78°05	53°34	2°98	15°80	14 25,,	20 24,,
7	78°08	53°68	3°00	21°12	14 15,,	20 14,,
9	78°11	54°02	3°03	26°46	14 4,,	20 3,,
11	78°14	54°36	3°05	31°81	13 53,,	19 52,,
13	78°16	54°70	3°07	37°17	13 43,,	19 41,,
15	78°17	55°05	3°10	42°54	13 32,,	19 31,,
17	78°18	55°39	3°12	47°93	13 21,,	19 20,,
19	78°19	55°73	3°14	53°32	13 10,,	19 9,,
21	78°19	56°07	3°17	58°73	13 0,,	18 58,,
23	78°18	56°41	3°19	64°15	12 49,,	18 47,,
25	78°17	56°74	3°21	69°58	12 38,,	18 37,,
27	78°15	57°07	3°23	75°02	12 27,,	18 26,,
29	78°13	57°40	3°26	80°47	12 16,,	18 15,,
Oct. 1	78°10	57°72	3°28	85°94	12 5,,	18 4W
3	78°06	58°04	3°30	91°41	11 54,,	23 52 E
5	78°03	58°35	3°32	96°89	11 44,,	23 41,,
7	77°98	58°66	3°34	102°39	11 33,,	23 31,,
9	77°93	58°96	3°36	107°89	11 22,,	23 20,,
11	77°88	59°24	3°37	113°40	11 11,,	23 9,,
13	77°82	59°52	+3°39	118°92	11 0 E	22 58 E